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Voltage Controlled Micro Cavity-waveguide Coupling for Switching, Routing, and Modulation of Optical Waves

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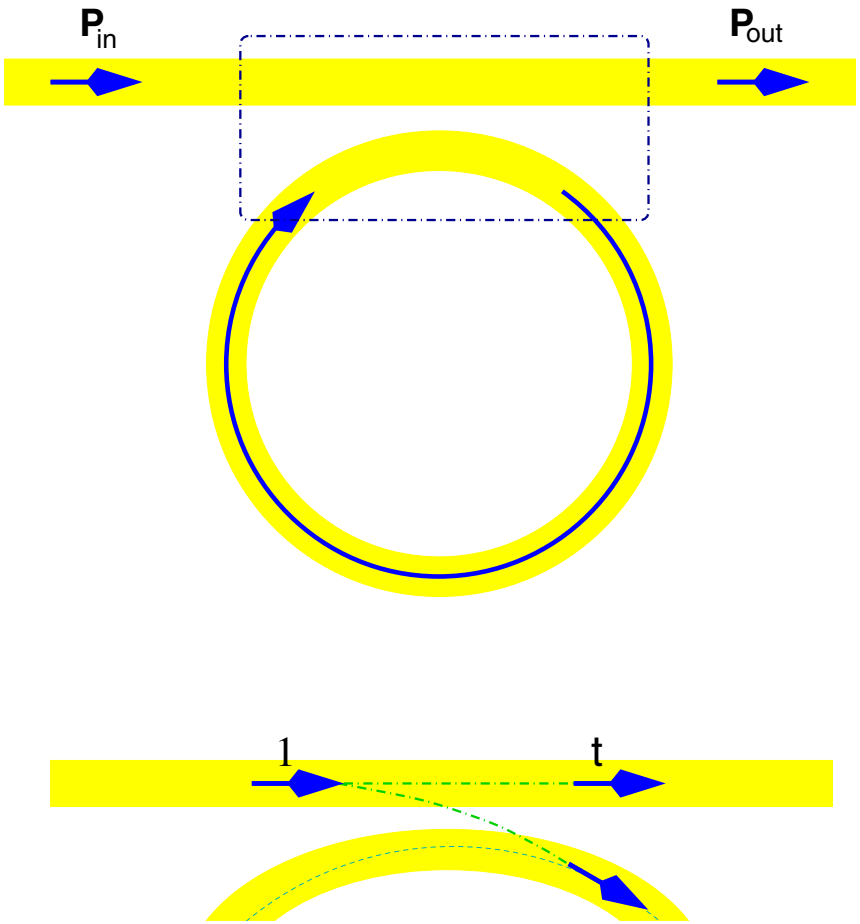

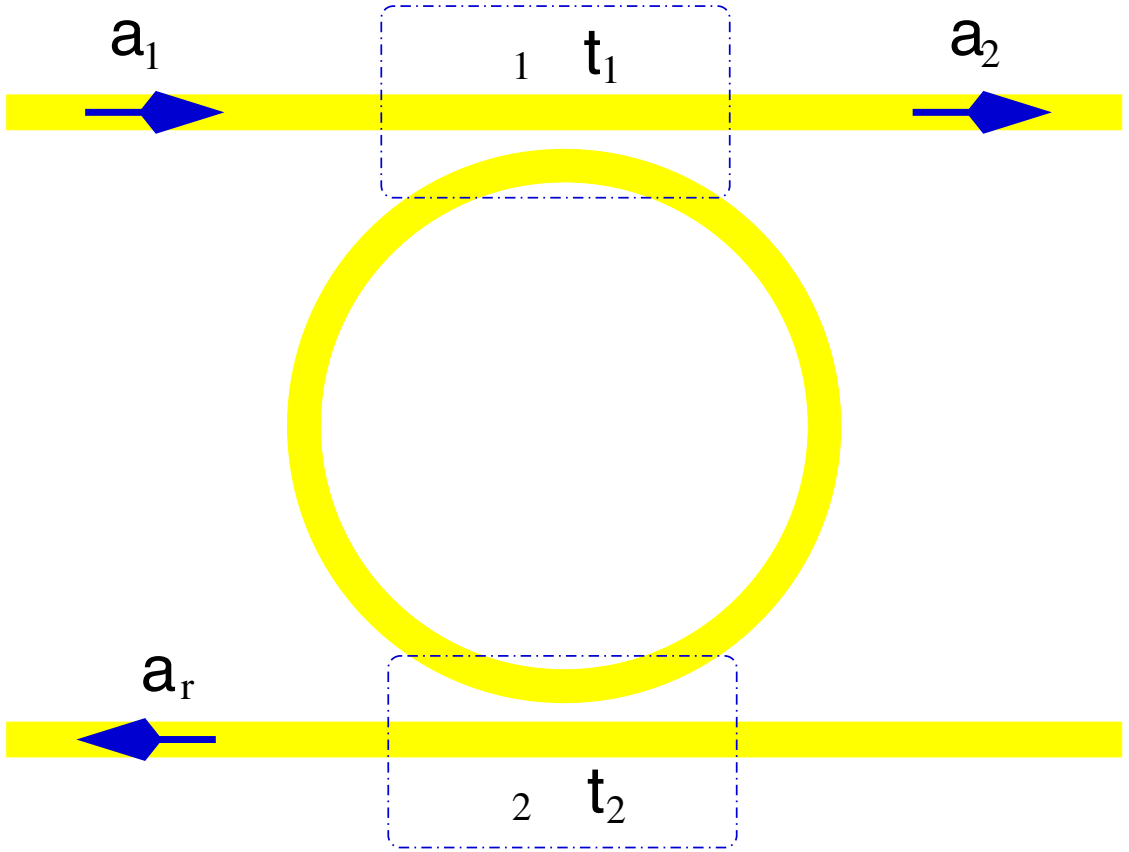

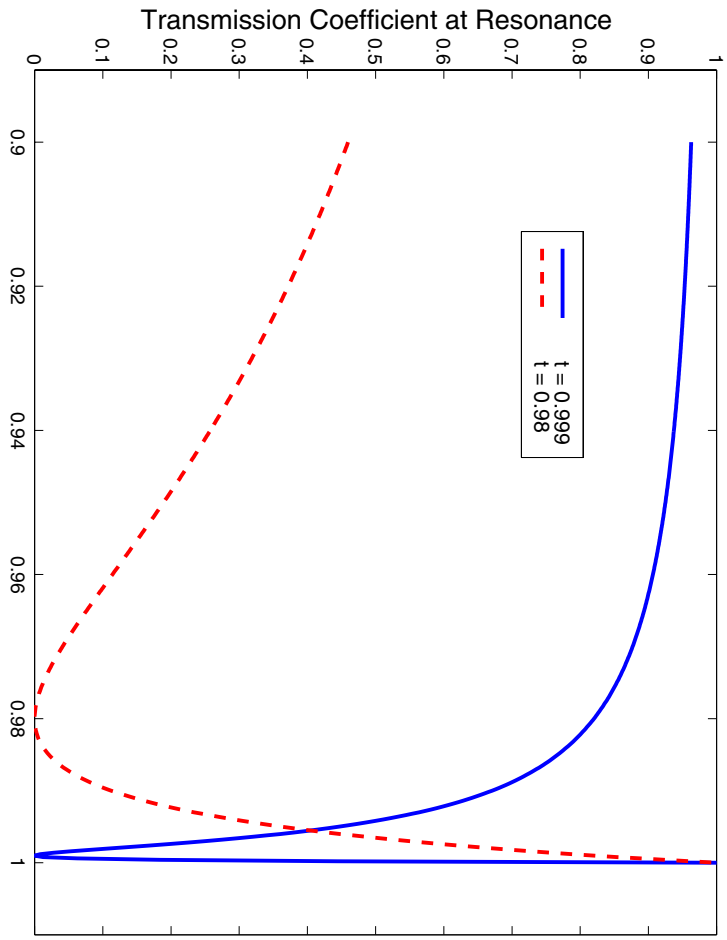

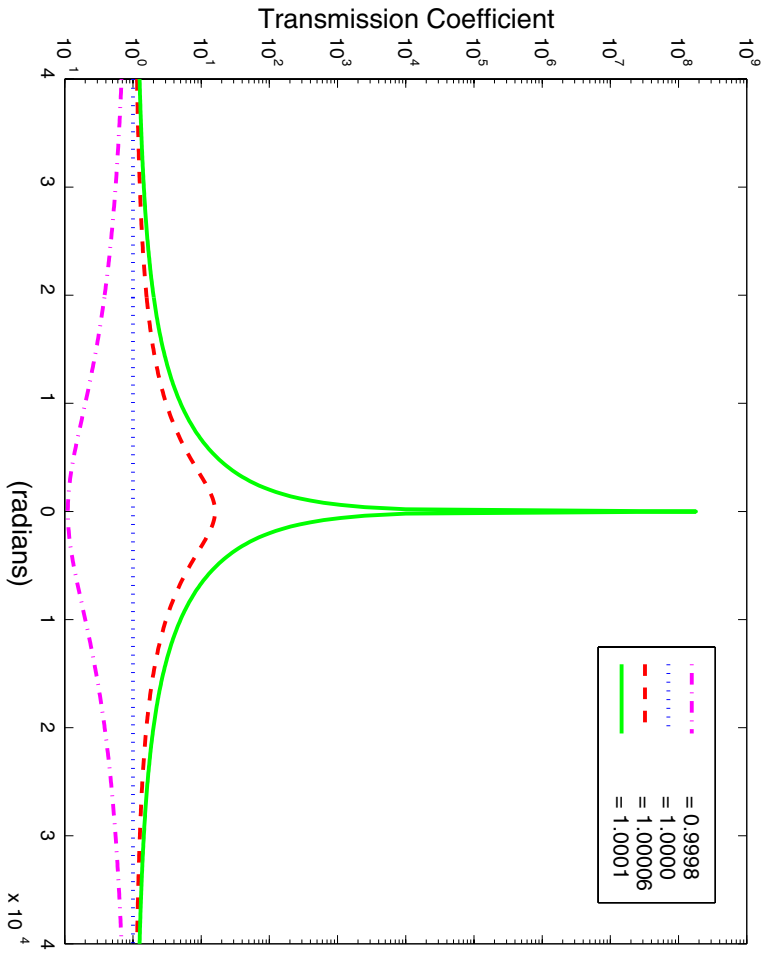

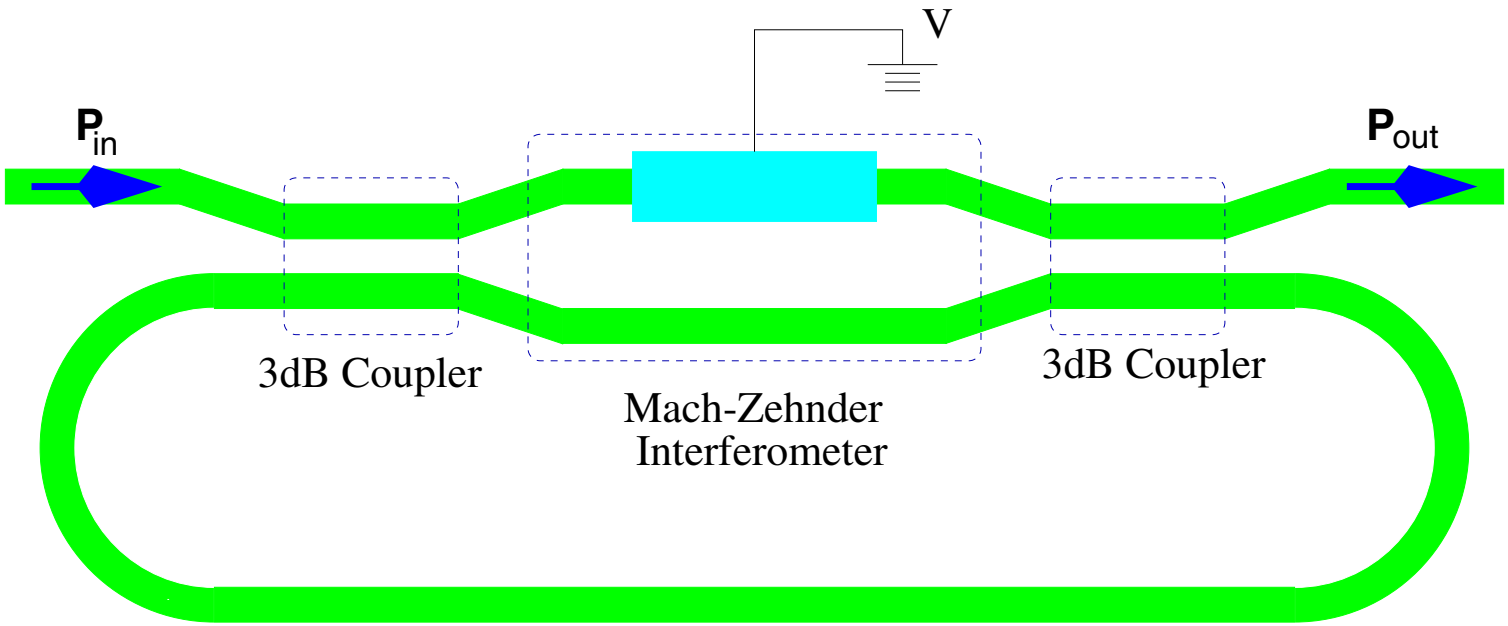

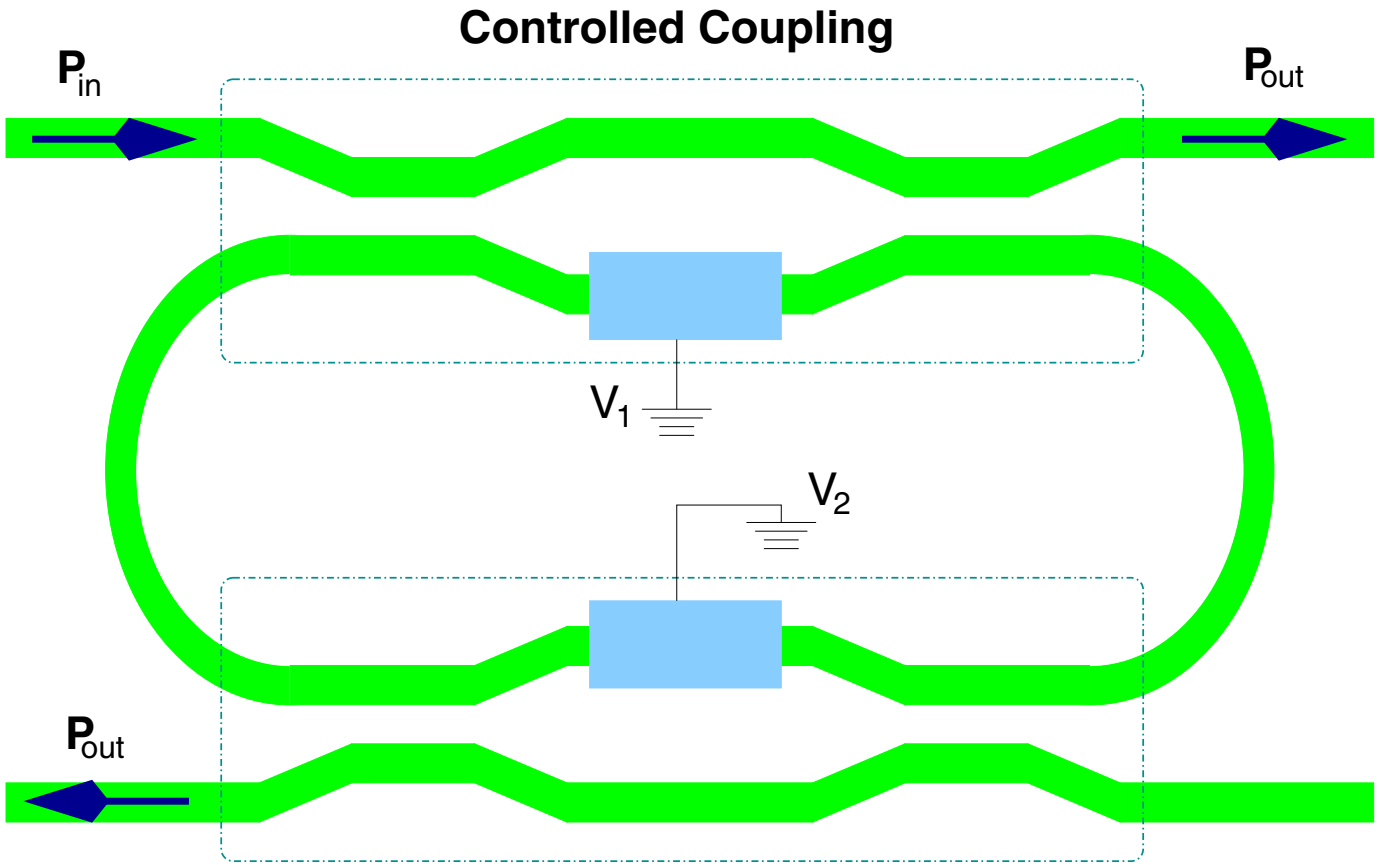

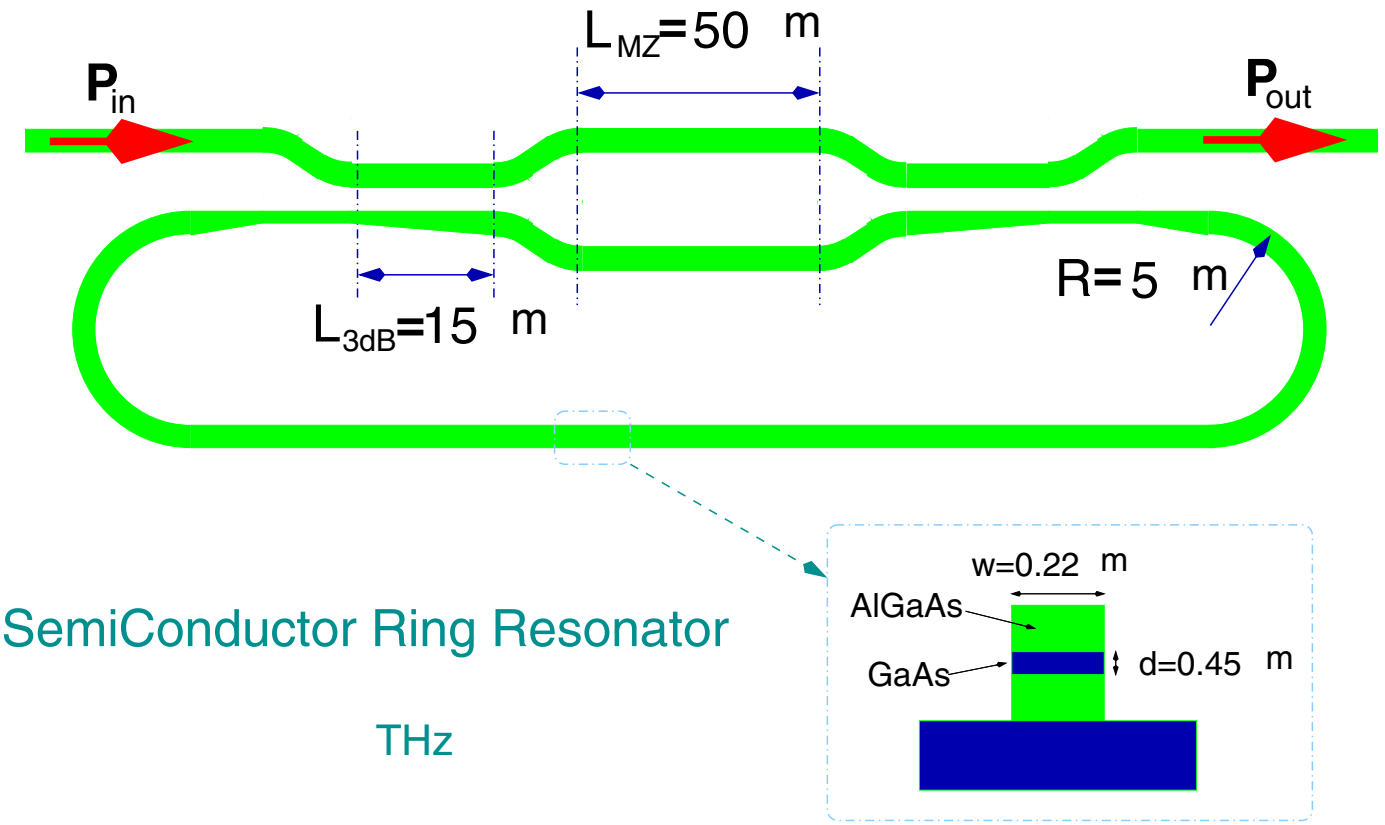

SemiConductor Ring Resonator

THz

Highly efficient optical power transfer to whispering-gallery modes by use of a symmetrical dual-coupling configuration

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Received September 28, 1999

We report that greater than 99.8% optical power transfer to whispering-gallery modes was achieved in fused-silica microspheres by use of a dual-tapered-fiber coupling method. The intrinsic cavity loss and the taper-to-sphere coupling coefficient are inferred from the experimental data. It is shown that the low intrinsic cavity loss and the symmetrical dual-coupling structure are crucial for obtaining the high coupling efficiency. © 2000 Optical Society of America

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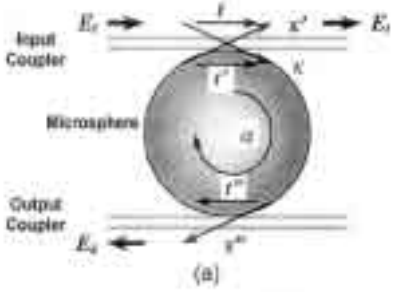

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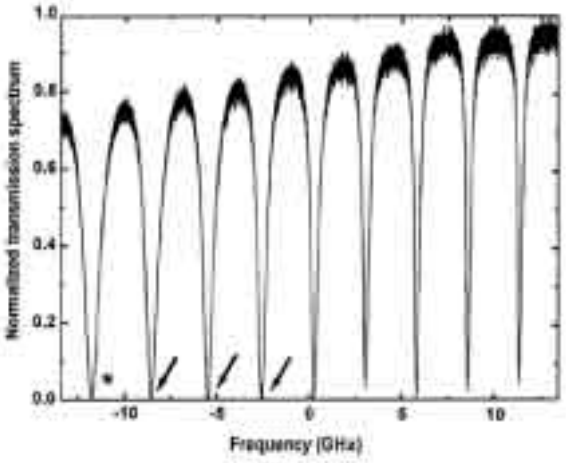

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